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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/727,070	11/29/2000	Naoshi Kikuchi	SOHSH009.001AUS	2733

20995 7590 09/16/2002

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EXAMINER

NGUYEN, CHAU N

ART UNIT	PAPER NUMBER
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2831

DATE MAILED: 09/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/727,070

Applicant(s)

NAOSHI KIKUCHI ET AL.

Examiner

Chau N Nguyen

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 August 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-11 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. In claim 1, lines 10-11, the recitation of "an arc-shaped curve which has a longer radius of curvature than the radius R and is concave with respect to **said straight line**" is vague. First, the claim recites "each segment strand comprising a straight line **OR** an arc-shaped curve". It means that the segment strand comprises **either** a straight line **or** an arc-shaped curve. Then, also in the same, it recites that "an arc-shaped curve is concave **with respect to said straight line**". It means that the two configurations are related.

4. In claim 6, lines 9-10, the recitation of "each segment strand...comprises a straight line **OR** an arc-shaped curve which is concave with respect to **said straight line**" is vague. Please see the explanation above with respect to claim 1.

5. In claim 6, lines 15-16, the recitation of "wherein said straight line **or** arc-shaped curve is concave with respect to the straight line" is vague. Specially, the phrase "said straight line is concave with respect to the straight line" in the recitation is vague and indefinite.

6. In claim 21, line 13, "said diameter d" lacks antecedent basis.

line 14, "said ratio H/R" lacks antecedent basis.

7. Claims 2-5 and 7-11 are included in this rejection because of dependency.

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 3-5, 12, 14-16 and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Munakata et al. (5,711,143).

Munakata et al. discloses an overhead cable comprising a tension bearing core (5), a conductive layer arranged at an outer circumference of the core and an outermost layer (1) constituted by twisting together a plurality of segment strands, and having a spiral groove along the longitudinal direction in the outer

circumferential surface region of each boundary portion of adjoining segment strands, wherein in the contour of the cross-section of the outermost layer, each groove comprises an arc-shaped curve having a predetermined radius  $R$  centered about a vertex of a regular polygon, each segment strand between adjoining grooves comprises a straight line (Figs 22A-F) (re claims 1 and 12), wherein there is a substantially discontinuous point between the straight line and the groove (re claim 1), or wherein the intersection between the sides of the grooves and the outer contour of the segments strands between the grooves defining sharp, substantially discontinuous edge (Figs 22 and 23) (re claim 12).

Munakata et al. also discloses the regular polygon being made within a range from a regular 12-sided polygon to a regular 24-sided polygon (re claims 3 and 14), a ratio  $D/d$  being within a range from 0.0 to 0.018 (re claims 4 and 15), a ratio  $H/d$  being within a range from 0.0045 to 0.0357 (col. 6, lines 24-26) (re claims 5 and 16), and the outer contour of the segment strands being concave (Figs 23G-J) (re claim 19).

Re claim 20, Munakata et al. discloses the invention as claimed in claim 20 including the intersection between sides of the grooves and the outer contour of the segment strands between the grooves defining a sharp, substantially discontinuous

edge such that the outer surface of the cable is substantially free of convexly curved surfaces (Figs 22A-F).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2, 13 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Munakata et al.

Claims 2, 13 and 21 additionally recite a diameter (d) of a circle circumscribing the vertex of the regular polygon being within a range from 12.8 mm to 42.6 mm. Munakata et al. discloses an overhead cable which should have a ratio H/D within 0.0055 to 0.082 to provide a low sag and low wind load cable but does not specifically disclose the diameter D (or d). However, it would have been obvious to one skilled in the art to choose a suitable diameter, including 12.8 mm to 42.6 mm, of the circle circumscribing the vertex of the regular polygon of Munakata et al. such that the ratio H/D will be within 0.0055 to 0.082 to provide a low sag and low wind load cable.

### ***Double Patenting***

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 6-11 and 12-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 5 and 8 of copending Application No. 09/881,256. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 2, 5 and 8 of the copending application 09/881,256 recite the diameter (d), the number (N), the depth (H), and the radius (R) which all satisfy the claimed ranges disclosed in the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Response to Arguments***

2. Applicant's arguments, regarding the 112, second paragraph rejection, with respect to claims 1 and 6 have been considered but are moot in view of the new ground(s) of rejection.

As stated by the applicant that "each segment strand comprising a straight line or an arc-shaped curve" implies two separate limitations. Accordingly, the reference needs to disclose either one of them and not both. Munakata et al. discloses each segment strand, in the outer contour, comprising a straight line.

***Summary***

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the



advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Communication***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N Nguyen whose telephone number is 308-0693. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308 3682. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308 3431 for regular communications and (703) 305 1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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A handwritten signature in cursive script, appearing to read "Chau N Nguyen".

Chau N Nguyen  
Primary Examiner  
Art Unit 2831

CN  
September 12, 2002